I. AMENDMENTS TO THE CLAIMS

1. (original): A modified plant zinc finger protein (ZFP) that binds to a target sequence.

2. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 17 ~~of claim 1~~, wherein the target sequence is a nucleic acid sequence.

3. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 2, wherein the nucleic acid is DNA.

4. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 2, wherein the target sequence is 3 or more contiguous nucleotides.

5. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 2, wherein the protein encoded by the polynucleotide ~~comprising~~ comprises a tandem array of zinc fingers.

6. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more of the zinc fingers of the ZFP are obtained by rational design.

7. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more of the zinc fingers of the ZFP are obtained by selection.

8. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 7, wherein selection is phage display, interaction trap, ribosome display ~~and~~ or RNA-peptide fusion.

9. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more of the zinc fingers comprise canonical C_2H_2 zinc fingers.

10. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more of the zinc fingers comprise non-canonical zinc fingers.

11. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more of the zinc fingers are derived from two or more plant species.

12. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 5, wherein one or more amino acid residues are deleted or substituted as compared to a naturally occurring plant ZFP.

13. (currently amended): The ~~modified plant zinc finger protein~~ isolated polynucleotide of claim 12, wherein one or more amino acid residues are deleted between one or more of the zinc fingers.

14. (currently amended): ~~A~~ The isolated polynucleotide of claim 17 further encoding a ~~fusion polypeptide comprising (i) a modified plant ZFP as described herein and (ii) at least one~~ functional domain.

Cancel

15. (currently amended): The ~~fusion polypeptide~~ isolated polynucleotide of claim 14, wherein the functional domain is a repressive domain.

16. (currently amended): The ~~fusion polypeptide~~ isolated polynucleotide of claim 14, wherein the functional domain is an activation domain.

17. (currently amended): An isolated polynucleotide encoding ~~the~~ a modified plant zinc finger protein that binds to a target sequence ~~of claim 1~~.

18. (original): An expression vector comprising the isolated polynucleotide of claim 17.

19. (original): A host cell comprising the isolated polynucleotide of claim 17.

20. (canceled).